

WHAT IS CLAIMED IS:

1. A recording apparatus comprising:

input means for inputting an image signal stream;

recording means for recording the image signal

5 stream input by said input means on a storage device;

and

extraction means for extracting a part of image

signals from the image signal stream, recorded on the

storage device, in accordance with a plurality of

10 pieces of procedure information that represent

predetermined extraction procedures different from each

other to extract the image signals, the procedure

information designating an extraction timing to extract

a part of image signals at a changeable interval, and

15 said extraction means extracting a part of image

signals in accordance with the extraction timing

designated by the procedure information.

2. The apparatus according to claim 1, wherein

said extraction means comprises storage means for

20 storing the plurality of pieces of procedure

information that represent a plurality of extraction

start timings corresponding to the predetermined

extraction procedures and extraction periods at the

timings, and

25 said extraction means extracts a part of image

signals in accordance with a piece of procedure

information selected from the plurality of pieces of

procedure information.

3. The apparatus according to claim 2, wherein said extraction means selects one procedure information from the plurality of pieces of procedure information in accordance with an instruction from a user.

4. The apparatus according to claim 3, wherein the plurality of pieces of procedure information correspond to different video genres, and said extraction means selects the piece of procedure information in accordance with a video genre designated by the user.

5. The apparatus according to claim 1, wherein said input means comprises reception means for receiving a broadcast wave and generation means for generating the image signals from the broadcast wave received by said reception means, and said extraction means selects one procedure information from the plurality of pieces of procedure information on the basis of program information superposed on the broadcast wave and extracts a part of image signals in accordance with the selected procedure information.

6. The apparatus according to claim 1, further comprising change means for changing the extraction procedure of the procedure information to an arbitrary procedure.

7. The apparatus according to claim 1, wherein

said extraction means generates an extracted image signal stream by extracting a part of image signals from the image signal stream that is being recorded by said recording means, and

5 said recording means records the extracted image signal stream on the storage device.

8. The apparatus according to claim 7, wherein the storage device includes a magnetic tape, and said recording means records the extracted image
10 signal stream in a predetermined area on the magnetic tape.

9. The apparatus according to claim 1, wherein said extraction means generates extraction position information representing a recording position on the
15 device for a part of image signals corresponding to the extraction timing in the image signal stream recorded on the storage device.

10. The apparatus according to claim 9, wherein the storage device is a random-accessible medium
20 having a number of clusters, and

the extraction position information represents a position of a cluster on which a part of image signals corresponding to the extraction timing are recorded.

11. The apparatus according to claim 9, wherein said
25 recording means further records the extraction position information on the storage device.

12. The apparatus according to claim 1, wherein said

extraction means further extracts a part of image signals in accordance with a degree of change in image signals contained in the image signal stream.

13. A recording apparatus comprising:

5 input means for inputting an information signal stream containing image and audio signals;

recording means for recording the image and audio signals input by said input means on a recording medium;

10 setting means for setting an extraction timing for extracting an image signal;

determination means for determining an extraction period for extracting a part of image signals from the image signals recorded by said recording means on the basis of, the audio signal during a period based on the extraction timing set by said setting means and the extraction timing set by said setting means; and

20 extraction means for extracting a part of image signals from the image signals recorded by said recording means in accordance with the extraction period determined by said determination means.

14. The apparatus according to claim 13, wherein said determination means detects a punctuation portion of audio data represented by the audio signal during the period based on the extraction timing and determines the extraction period on the basis of the punctuation portion.

15. A recording apparatus comprising:

reception means for receiving a broadcast wave and detecting image signals superposed on the broadcast wave;

5 recording means for recording the image signal detected by said reception means on a storage medium;

a memory for storing a plurality of pieces of different extraction procedure information each of which defines a predetermined extraction interval and
10 extraction period related to the image signals, the plurality of pieces of extraction procedure information defining changeable extraction intervals; and

extraction means for selecting one of the plurality of pieces of extraction procedure information
15 stored in said memory in accordance with the image signals recorded by said recording means and extracting a part of image signals from the image signals, recorded by said recording means, on the basis of the extraction procedure defined by the selected procedure
20 information.

16. The apparatus according to claim 15, wherein said extraction means comprises genre detection means for detecting a genre of the image signal and selects the piece of extraction procedure information in accordance
25 with the genre detected by said genre detection means.

17. The apparatus according to claim 16, wherein the plurality of pieces of extraction procedure information

correspond to a plurality of genres.

18. The apparatus according to claim 16, wherein said genre detection means detects the genre of the image signal on the basis of program information superposed on the broadcast wave.

19. The apparatus according to claim 15, wherein said extraction means generates an extracted image signal stream formed from some extracted image signals, and

10 said recording means further records the extracted image signal stream on the storage medium.

20. The apparatus according to claim 15, wherein said extraction means generates extraction position information representing a recording position of an image signal on the device, which corresponds to a part of image signals in the image signals recorded on said storage medium.

21. A recording apparatus comprising:

20 reception means for receiving a broadcast wave and detecting image signals superposed on the broadcast wave;

recording means for recording the image signals detected by said reception means on a storage medium;

25 setting means for setting an extraction interval and extraction period of the image signals in accordance with the image signals recorded by said recording means, said setting means setting a

changeable extraction interval; and

extraction means for extracting a part of image signals from the image signals, recorded by said recording means, in accordance with the extraction interval and extraction period set by said setting means.

22. The apparatus according to claim 21, wherein said extraction means comprises genre detection means for detecting a genre of the image signal and sets the extraction interval and extraction period in accordance with the genre detected by said genre detection means.

23. The apparatus according to claim 22, wherein said genre detection means detects the genre of the image signal on the basis of program information superposed on the broadcast wave.

24. A recording method comprising the steps of:
inputting an image signal stream;
recording the image signal stream input at the input step on a storage device; and

extracting a part of image signals from the image signal stream, recorded on the storage device, in accordance with a plurality of pieces of procedure information that represent predetermined extraction procedures different from each other to extract the image signals, the procedure information designating an extraction timing to extract a part of image signals at a changeable interval, and the extraction step

extracting the part of image signals in accordance with the extraction timing designated by the procedure information.

25. The method according to claim 24, wherein

5 the extraction step comprises the storage step of storing the plurality of pieces of procedure information that represent a plurality of extraction start timings corresponding to the predetermined extraction procedures and extraction periods at the
- 10 timings, and

the extraction step extracts a part of image signals in accordance with a piece of procedure information selected from the plurality of pieces of procedure information.

15 26. The method according to claim 25, wherein the extraction step selects one procedure information from the plurality of pieces of procedure information in accordance with an instruction from a user.

27. The method according to claim 26, wherein

20 the plurality of pieces of procedure information correspond to different video genres, and

the extraction step selects the piece of procedure information in accordance with a video genre designated by the user.

25 28. The method according to claim 24, wherein

the input step comprises the reception step of receiving a broadcast wave and the generation step of

generating the image signals from the broadcast wave received at the reception step, and

the extraction step selects one procedure information from the plurality of pieces of procedure information on the basis of program information superposed on the broadcast wave and extracts a part of image signals in accordance with the selected procedure information.

29. The method according to claim 24, further comprising the change step of changing the extraction procedure of the procedure information to an arbitrary procedure.

30. The method according to claim 24, wherein the extraction step generates an extracted image signal stream by extracting a part of image signals from the image signal stream that is being recorded at said recording step, and

the recording step records the extracted image signal stream on the storage device.

31. The method according to claim 30, wherein the storage device includes a magnetic tape, and the recording step records the extracted image signal stream in a predetermined area on the magnetic tape.

32. The method according to claim 24, wherein the extraction step generates extraction position information representing a recording position on the

device for a part of image signals corresponding to the extraction timing in the image signal stream recorded on the storage device.

33. The method according to claim 32, wherein

5 the storage device is a random-accessible medium having a number of clusters, and

the extraction position information represents a position of a cluster on which a part of image signals corresponding to the extraction timing are recorded.

10 34. The method according to claim 32, wherein the recording step further records the extraction position information on the storage device.

35. The method according to claim 24, wherein the extraction step further extracts a part of image
15 signals in accordance with a degree of change in image signals contained in the image signal stream.

36. A recording method comprising the steps of:

inputting an information signal stream containing image and audio signals;

20 recording the image and audio signals input by said input means on a recording medium;

setting an extraction timing for extracting an image signal;

determining an extraction period for extracting a
25 part of image signals from the image signals recorded at the recording step on the basis of, of the audio signal input at the input step, the audio signal during

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a period based on the extraction timing set at the
setting step and the extraction timing set at the
setting step; and

extracting a part of image signals from the image
5 signals recorded at the recording step in accordance
with the extraction period determined at the
determination step.

37. The method according to claim 36, wherein the
determination step detects a punctuation portion of
10 audio data represented by the audio signal during the
period based on the extraction timing and determines
the extraction period on the basis of the punctuation
portion.

38. A recording method comprising the steps of:
15 receiving a broadcast wave and detecting image
signals superposed on the broadcast wave;

recording the image signal detected at the
receiving step on a storage medium; and

selecting one of the plurality of pieces of
20 extraction procedure information, stored in a memory,
each of which defines a predetermined extraction
interval and extraction period related to the image
signals in accordance with the image signals recorded
at the recording step, the plurality of pieces of
25 extraction procedure information defining changeable
extraction intervals; and

extracting a part of image signals from the image

signals, recorded at the recording step, on the basis of a capture procedure defined by the selected procedure information.

39. The method according to claim 38, wherein the
5 selecting step comprises the genre detection step of detecting a genre of the image signal and selects the piece of extraction procedure information in accordance with the genre detected at the genre detection step.

40. The method according to claim 39, wherein the
10 plurality of pieces of extraction procedure information correspond to a plurality of genres.

41. The method according to claim 39, wherein the
genre detection step detects the genre of the image
signal on the basis of program information superposed
15 on the broadcast wave.

42. The method according to claim 38, wherein
the extracting step generates an extracted image
signal stream formed from a part of extracted image
signals, and

20 the recording step further records the extracted
image signal stream on the storage medium.

43. The method according to claim 38, wherein the
extracting step generates extraction position
information representing a recording position of an
25 image signal on the device, which corresponds to a part
of image signals in the image signals recorded on said
storage medium.

44. A recording method comprising the steps of:
receiving a broadcast wave and detecting image
signals superposed on the broadcast wave;
recording the image signals detected at the
5 reception step on a storage medium;
setting an extraction interval and extraction
period of the image signals in accordance with the
image signals recorded at the recording step, the
setting step setting a changeable extraction interval;
10 and
extracting a part of image signals from the image
signals, recorded at the recording step, in accordance
with the extraction interval and extraction period set
at the setting step.

15 45. The method according to claim 44, wherein the
extraction step comprises the genre detection step of
detecting a genre of the image signal and sets the
extraction interval and extraction period in accordance
with the genre detected at the genre detection step.

20 46. The method according to claim 45, wherein the
genre detection step detects the genre of the image
signal on the basis of program information superposed
on the broadcast wave.

47. A computer readable medium storing a control
25 program for causing a computer to execute a recording
method, said control program comprising:
codes for an input step of inputting an image

signal stream;

codes for a recording step of recording the image signal stream input at the input step on a storage device; and

5 codes for an extraction step of extracting a part of image signals from the image signal stream, recorded on the storage device, in accordance with a plurality of pieces of procedure information that represent predetermined extraction procedures different from each
10 other to extract the image signals, the procedure information designating an extraction timing to extract a part of image signals at a changeable interval, and the extraction step extracting the part of image signals in accordance with the extraction timing
15 designated by the procedure information.

48. A computer readable medium storing a control program for causing a computer to execute a recording method, said control program comprising:

codes for an input step of inputting an
20 information signal stream containing image and audio signals;

codes for a recording step of recording the image and audio signals input by said input means on a recording medium;

25 codes for a setting step of setting an extraction timing for extracting an image signal;

codes for a determination step of determining an

extraction period for extracting a part of image signals from the image signals recorded at the recording step on the basis of, of the audio signal input at the input step, the audio signal during a
5 period based on the extraction timing set at the setting step and the extraction timing set at the setting step; and

codes for an extraction step of extracting a part of image signals from the image signals recorded at the
10 recording step in accordance with the extraction period determined at the determination step.

49. A computer readable medium storing a control program for causing a computer to execute a recording method, said control program comprising:

15 codes for a reception step of receiving a broadcast wave and detecting image signals superposed on the broadcast wave;

codes for a recording step of recording the image signal detected at the receiving step on a storage
20 medium; and

codes for selecting step of selecting one of the plurality of pieces of extraction procedure information, stored in a memory, each of which defines a predetermined extraction interval and extraction period
25 related to the image signals in accordance with the image signals recorded at the recording step, the plurality of pieces of extraction procedure information

defining changeable extraction information; and

codes for the extracting step of extracting a
part of image signals from the image signals, recorded
at the recording step, on the basis of a capture
5 procedure defined by the selected procedure information.

50. A computer readable medium storing a control
program for causing a computer to execute a recording
method, said control program comprising:

codes for a reception step of receiving a
10 broadcast wave and detecting image signals superposed
on the broadcast wave;

codes for a recoding step of recording the image
signals detected at the reception step on a storage
medium;

15 codes for a setting step of setting an extraction
interval and extraction period of the image signals in
accordance with the image signals recorded at the
recording step, the setting step setting a changeable
extraction interval; and

20 codes for an extraction step of extracting a part
of image signals from the image signals, recorded at
the recording step, in accordance with the extraction
interval and extraction period set at the setting step.